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AVAGO TECHNOLOGIES, LTD.
P.O. BOX 1920
DENVER, CO 80201-1920

EXAMINER	
JERABEK, KELLY L	
ART UNIT	PAPER NUMBER
2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/970,611	POPLIN, DWIGHT	
	Examiner	Art Unit	
	Kelly L. Jerabek	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-8,10,12-16,18-21 and 24-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-8, 10, 12-16, 18-21 and 24-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 1/8/2007 have been fully considered but they are not persuasive.

Response to Remarks:

Applicant's arguments regarding independent claims 1, 10 and 18 (Amendment pages 8-9) state that the Norita reference fails to disclose displaying the first and second images as comparison images for user selection where the "first image" is captured by "processing raw image data of a single image of a captured scene of interest using a first setting of a selected image-capturing parameter" and the "second image" is captured by processing the raw image data using a second setting of the selected image-capturing parameter". Therefore, the cited references of Shinsky et al. and Norita et al. when combined do not teach or suggest all of the claim limitations of amended independent claim 1. The Examiner respectfully disagrees. **The Shinsky reference provides the teaching of generating a first image and a second image using different settings of image capturing parameters including: processing raw image data using first settings of the image capturing parameters (contrast, brightness, hue, gain, etc.) to produce a first image of the scene of interest and**

processing the raw image data using second settings of the image capturing parameters (contrast, brightness, hue, gain, etc.) to produce a second image of the scene of interest (col. 4, lines 30-53;col. 5, line 31- col. 8, line 35; col. 9, line 40 – col. 10, line 65) (The host computer (200) processes the raw image data in order to continually adjust the gain and appropriately adjust the control signals according to input of a user via a graphical user interface, thus multiple images are produced according to the updated image capturing parameters). The Norita reference was cited to provide the teaching of displaying multiple images as comparison images for user selection and adjusting current settings of an image capturing device to conform with an image selected by a user. Thus, it can be seen that the combination of the references teaches accessing multiple images generated from a single raw image as disclosed by Shinsky and comparing them in order to adjust the settings of an image capturing device as disclosed by Norita. The references are being combined as follows in order to meet the limitations of claim 1:

Shinsky discloses in figure 3 a system including a video camera capable of transmitting raw video data to a host computer where it is processed and converted for display (col. 4, lines 6-27). The system provides a method of adjusting image-capturing parameters of an image-capturing device (100) comprising: a first image and a second image using different settings of image capturing parameters including: processing raw image data using first settings of the image capturing parameters (contrast, brightness,

hue, gain, etc.) to produce a first image of the scene of interest; processing the raw image data using second settings of the image capturing parameters (contrast, brightness, hue, gain, etc.) to produce a second image of the scene of interest (col. 4, lines 30-53;col. 5, line 31- col. 8, line 35; col. 9, line 40 – col. 10, line 65) (The host computer (200) processes the raw image data in order to continually adjust the gain and appropriately adjust the control signals according to input of a user via a graphical user interface, thus multiple images are produced according to the updated image capturing parameters); and adjusting current settings of the image capturing parameters of the image capturing device (100) to conform with one of the first and second images, the adjusted current settings of the image capturing parameters being used by the image capturing device (100) to capture a subsequent image (generated shutter and AGC control signals which conform to the user input via the graphical user interface are provided to the camera (100) (col. 8, lines 1-15, 55-67)). Although the Shinsky reference discloses all of the above limitations including a graphical user interface allowing a user view images and to provide control inputs to adjust current settings (gain value, contrast, brightness, hue, etc.) of a picture, the reference fails to distinctly state that first and second images having different image capturing parameters are displayed for user selection and the current settings of the image capturing parameters are adjusted to conform with one of the first and second images selected by a user .

Norita discloses in figure 9 a flow chart of the operation of manual exposure photography of a digital camera. The camera includes an image sensor (9) that captures a plurality of images at different exposure times by activating after a lapse of

time (Ti) and replacing the previous image signal in a buffer memory (82) with the current image signal (page 6, paragraphs 115-118). Therefore, a first image and a second image are captured using different settings of image-capturing parameters (exposure settings). Each of the images corresponding to a different exposure setting is displayed on an LCD (51), and when an image with desired exposure is displayed on the LCD (51) a user selects that image by pressing a release button (30) (page 6, paragraphs 119-120). Therefore, first and second images corresponding to different exposure settings are displayed as comparison images for user selection. The exposure settings of the camera are changed for each exposure time in order to obtain images of varying exposure (page 6, paragraphs 118-119). Therefore, the current settings of the image capturing parameters (exposure settings) are adjusted for each image that is written to the buffer memory (82). If the user presses the release button (30), the process goes on to step 45 and the exposure is not further changed (page 6, paragraphs 120-121). Since when the release button is pressed the exposure time is not further changed (and the exposure time is changed otherwise) the Examiner is reading this feature as adjusting current settings (corresponding to not changing the exposure time) of the image-capturing parameters of the image-capturing device. Therefore, the current settings of the image capturing parameters remain the same when an image is selected by a user. Thus, the settings conform with the image selected by the user. As stated above, Norita discloses a method of displaying comparison images for user selection and subsequently adjusting settings of an image capturing device according to the user selection. Therefore, it would have been obvious

for one skilled in the art to have been motivated to include the concept of adjusting the currents settings of image capturing parameters according to a displayed image that is selected by a user as disclosed by Norita in the method of processing raw image data by setting image capturing parameters using a graphical user interface as disclosed by Shinsky. Doing so would provide a means for specifying an image having proper image capturing parameters while viewing a serially updated image in order to set the image capturing parameters (Norita: page 7, paragraph 135).

Applicant's arguments regarding independent claims 1, 10 and 18 (Amendment pages 9-10) state that the process for capturing image signals using different exposure times for a substantially same scene as disclosed by Norita does not make sense for a video camera, such as the video camera of Shinsky. Thus, displaying captured images corresponding to a plurality of predetermined exposure times by a predetermined time interval with a lapse of time for user selection as described by Norita is not practical using the video camera disclosed by Shinsky and therefore one of ordinary skill in the art would not have been motivated to modify the video camera of Shinsky with the teachings of Nortia. The Examiner respectfully disagrees. Shinsky states that a user of the video camera may also select a high resolution still picture mode rather than the streaming video mode. When the high resolution still picture mode is selected, the CCD is scanned a single line at a time and the image data is transmitted to the host computer in order to provide a higher resolution image. Also, the digital signal processing for the image is performed as described for video images (col. 10, lines 59-65). Therefore, it

would have been obvious for one skilled in the art to have been motivated to include the concept of adjusting the current settings of image capturing parameters according to a displayed image that is selected by a user as disclosed by Norita in the method of processing raw image data (high resoluction still images) by setting image capturing parameters using a graphical user interface as disclosed by Shinsky. Doing so would provide a means for specifying an image having proper image capturing parameters while viewing a serially updated image in order to set the image capturing parameters (Norita: page 7, paragraph 135).

Applicant's arguments regarding independent claims 10 and 18 (Amendment page 11) are substantially the same as the arguments regarding claim 1 above therefore the response above also applies to claims 10 and 18.

Applicant's arguments regarding dependent claims 3-8, 12-16 and 19-21 (Amendment page 11) are substantially the same as the arguments regarding claim 1 above therefore the response above also applies to claims 3-8, 12-16 and 19-21.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-8, 10, 12-16, 18-21 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinsky et al. US 6,285,398 in view of Nortia et al. US 2004/0169767.

Re claim 18, Shinsky discloses in figure 3 a system including a video camera capable of transmitting raw video data to a host computer where it is processed and converted for display (col. 4, lines 6-27). The system provides a method of adjusting image-capturing parameters of an image-capturing device (100) comprising: capturing a scene of interest as raw image data using an image sensor (12) of the image-capturing device (100) (col. 4, lines 30-53); processing the raw image data using first settings of the image capturing parameters (contrast, brightness, hue, gain, etc.) to produce a first image of the scene of interest; processing the raw image data using second settings of the image capturing parameters (contrast, brightness, hue, gain, etc.) to produce a second image of the scene of interest (col. 5, line 31- col. 8, line 35; col. 9, line 40 – col. 10, line 65) (The host computer (200) processes the raw image data in order to continually adjust the gain and appropriately adjust the control signals according to input of a user via a graphical user interface, thus multiple images are produced according to the updated image capturing parameters); and adjusting current settings of the image capturing parameters of the image capturing device (100) to conform with one of the first and second images, the adjusted current settings of the image capturing

parameters being used by the image capturing device (100) to capture a subsequent image (generated shutter and AGC control signals are provided to the camera (100) (col. 8, lines 1-15, 55-67)). Although the Shinsky reference discloses all of the above limitations including a graphical user interface allowing a user view images and to provide control inputs to adjust current settings (gain value, contrast, brightness, hue, etc.) of a picture, the reference fails to distinctly state that first and second images having different image capturing parameters are displayed for user selection and the current settings of the image capturing parameters are adjusted to conform with one of the first and second images selected by a user .

Norita discloses in figure 9 a flow chart of the operation of manual exposure photography of a digital camera. The camera includes an image sensor (9) that captures a plurality of images at different exposure times by activating after a lapse of time (Ti) and replacing the previous image signal in a buffer memory (82) with the current image signal (page 6, paragraphs 115-118). Therefore, a first image and a second image are captured using different settings of image-capturing parameters (exposure settings). Each of the images corresponding to a different exposure setting is displayed on an LCD (51), and when an image with desired exposure is displayed on the LCD (51) a user selects that image by pressing a release button (30) (page 6, paragraphs 119-120). Therefore, first and second images corresponding to different exposure settings are displayed as comparison images for user selection. The exposure settings of the camera are changed for each exposure time in order to obtain images of varying exposure (page 6, paragraphs 118-119). Therefore, the current

settings of the image capturing parameters (exposure settings) are adjusted for each image that is written to the buffer memory (82). If the user presses the release button (30), the process goes on to step 45 and the exposure is not further changed (page 6, paragraphs 120-121). Since when the release button is pressed the exposure time is not further changed (and the exposure time is changed otherwise) the Examiner is reading this feature as adjusting current settings (corresponding to not changing the exposure time) of the image-capturing parameters of the image-capturing device. Therefore, the current settings of the image capturing parameters remain the same when an image is selected by a user. Thus, the settings conform with the image selected by the user. As stated above, Norita discloses a method of displaying comparison images for user selection and subsequently adjusting settings of an image capturing device according to the user selection. Therefore, it would have been obvious for one skilled in the art to have been motivated to include the concept of adjusting the currents settings of image capturing parameters according to a displayed image that is selected by a user as disclosed by Norita in the method of processing raw image data by setting image capturing parameters using a graphical user interface as disclosed by Shinsky. Doing so would provide a means for specifying an image having proper image capturing parameters while viewing a serially updated image in order to set the image capturing parameters (Norita: page 7, paragraph 135).

Re claim 19, the image capturing parameters adjusted by the host computer (200) include contrast, brightness, hue, gamma correction, and white balance (col. 6, lines 17-35; col. 7, lines 57-60; col. 9, lines 44-48).

Re claim 20, Norita states that the LCD (51) can display images either in sequence or in parallel after photo shooting (page 6, paragraph 124). Therefore, first and second images corresponding to different exposure settings may be simultaneously displayed.

Re claim 21, Norita states that the LCD (51) can display images either in sequence or in parallel after photo shooting (page 6, paragraph 124). Therefore, first and second images corresponding to different exposure settings may be sequentially displayed.

Re claim 1, Shinsky discloses in figure 3 a system including a video camera capable of transmitting raw video data to a host computer where it is processed and converted for display (col. 4, lines 6-27). The system provides a method of adjusting image-capturing parameters of an image-capturing device (100) comprising: a first image and a second image using different settings of image capturing parameters including: processing raw image data using first settings of the image capturing parameters (contrast, brightness, hue, gain, etc.) to produce a first image of the scene of interest; processing the raw image data using second settings of the image capturing

parameters (contrast, brightness, hue, gain, etc.) to produce a second image of the scene of interest (col. 4, lines 30-53;col. 5, line 31- col. 8, line 35; col. 9, line 40 – col. 10, line 65) (The host computer (200) processes the raw image data in order to continually adjust the gain and appropriately adjust the control signals according to input of a user via a graphical user interface, thus multiple images are produced according to the updated image capturing parameters); and adjusting current settings of the image capturing parameters of the image capturing device (100) to conform with one of the first and second images, the adjusted current settings of the image capturing parameters being used by the image capturing device (100) to capture a subsequent image (generated shutter and AGC control signals which conform to the user input via the graphical user interface are provided to the camera (100) (col. 8, lines 1-15, 55-67)). Although the Shinsky reference discloses all of the above limitations including a graphical user interface allowing a user view images and to provide control inputs to adjust current settings (gain value, contrast, brightness, hue, etc.) of a picture, the reference fails to distinctly state that first and second images having different image capturing parameters are displayed for user selection and the current settings of the image capturing parameters are adjusted to conform with one of the first and second images selected by a user .

Norita discloses in figure 9 a flow chart of the operation of manual exposure photography of a digital camera. The camera includes an image sensor (9) that captures a plurality of images at different exposure times by activating after a lapse of time (Ti) and replacing the previous image signal in a buffer memory (82) with the

current image signal (page 6, paragraphs 115-118). Therefore, a first image and a second image are captured using different settings of image-capturing parameters (exposure settings). Each of the images corresponding to a different exposure setting is displayed on an LCD (51), and when an image with desired exposure is displayed on the LCD (51) a user selects that image by pressing a release button (30) (page 6, paragraphs 119-120). Therefore, first and second images corresponding to different exposure settings are displayed as comparison images for user selection. The exposure settings of the camera are changed for each exposure time in order to obtain images of varying exposure (page 6, paragraphs 118-119). Therefore, the current settings of the image capturing parameters (exposure settings) are adjusted for each image that is written to the buffer memory (82). If the user presses the release button (30), the process goes on to step 45 and the exposure is not further changed (page 6, paragraphs 120-121). Since when the release button is pressed the exposure time is not further changed (and the exposure time is changed otherwise) the Examiner is reading this feature as adjusting current settings (corresponding to not changing the exposure time) of the image-capturing parameters of the image-capturing device. Therefore, the current settings of the image capturing parameters remain the same when an image is selected by a user. Thus, the settings conform with the image selected by the user. As stated above, Norita discloses a method of displaying comparison images for user selection and subsequently adjusting settings of an image capturing device according to the user selection. Therefore, it would have been obvious for one skilled in the art to have been motivated to include the concept of adjusting the

currents settings of image capturing parameters according to a displayed image that is selected by a user as disclosed by Norita in the method of processing raw image data by setting image capturing parameters using a graphical user interface as disclosed by Shinsky. Doing so would provide a means for specifying an image having proper image capturing parameters while viewing a serially updated image in order to set the image capturing parameters (Norita: page 7, paragraph 135).

Re claim 3, the step of capturing first and second images includes sequentially capturing a scene of interest using two different settings of a selected image capturing parameter to capture the first and second images (an automatic exposure algorithm is performed in order to generate shutter and AGC control signals to ensure that the proper signal level is output from the camera (100). The automatic exposure algorithm is operated continuously in order to produce updated control signals at intervals of every ten frames (col. 8, lines 1-15).

Re claim 4, the image capturing parameters adjusted by the host computer (200) include contrast, brightness, hue, gamma correction, exposure period, and white balance (col. 6, lines 17-35; col. 7, lines 57-60; col. 8, lines 1-15; col. 9, lines 44-48).

Re claim 5, see claim 4.

Re claim 6, Norita states that the LCD (51) can display images either in sequence or in parallel after photo shooting (page 6, paragraph 124). Therefore, first and second images corresponding to different exposure settings may be simultaneously displayed.

Re claim 7, Norita states that the LCD (51) can display images either in sequence or in parallel after photo shooting (page 6, paragraph 124). Therefore, first and second images corresponding to different exposure settings may be sequentially displayed.

Re claim 8, a subsequent (third) image is captured using the current settings (calculated shutter, AGC, and gain adjustment values) of the image capturing parameters to produce the third image (col. 8, line 57 – co. 9, line 37).

Re claim 10, see claim 1.

Re claim 12, see claim 3.

Re claim 13, see claim 4.

Re claim 14, see claim 5.

Re claim 15, see claim 6.

Re claim 16, see claim 7.

Re claims 24-26, Shinsky states that the graphical user interface provides a viewing window which allows a user to view the current video images (raw image data) sent from the camera and while viewing these video images, the user can provide control inputs to adjust the contrast, brightness, hue and white balance of the picture in order to optimize the picture for the current environment (col. 9, lines 40-56). Thus, it can be seen that Shinsky discloses that processing the raw image data (current video images sent from the camera) using the second setting of the selected image-capturing parameter (the user selected parameters, eg. contrast, brightness, hue and whitebalance) includes generating a simulated image (a new updated image is produced each time the user adjusts a parameter) that represents an image captured using the second setting (whatever parameter setting the user chooses second in the sequence) of the selected image-capturing parameter to produce a second image.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is **(571) 272-7312**. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on **(571) 272-7304**. The fax phone number for submitting all Official communications is **(571) 273-8300**. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at **(571) 273-7312**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). KLJ

KLJ

TUAN HO
PRIMARY EXAMINER